Parnassius dongalaicus Tytler, 1926, a poorly known and ill-treated species (Lepidoptera: Papilionidae)

Jean Hanus

Jean Hanus, 2 rue de Belgrade, F-38000 Grenoble, France; jean.g.hanus@wanadoo.fr

Abstract: This note gives details of the history of *Parnassius dongalaicus* Tytler, 1926. Described as a species close to *P. mercurius* Grum-Grshimailo, 1891, put in synonymy to *P. epaphus himalayanus* Riley, 1923 by O. Bang-Haas (1927), it was then considered as a subspecies of *P. epaphus* Oberthür, 1879 by F. Bryk (1935). After the description of *P. rikihiroi* Kawasaki, 1995, S. Sugisawa (1996) restored the taxon *dongalaicus* to its original status, with *rikihiroi* as a subspecies. Then in 2005 J. C. Weiss placed both taxa in an "*epaphus* complex". Here it is argued that, as the females of both *P. jacquemonti* Boisduval, 1836 and *P. dongalaicus* have a keeled sphragis, they should be united in the same species group, the *jacquemonti* group.

***Parnassius dongalaicus* Tytler, 1926, eine wenig bekannte und fehlinterpretierte Art (Lepidoptera: Papilionidae)**

Zusammenfassung: Dieser Beitrag beschreibt die Geschichte des Taxons *Parnassius dongalaicus* Tytler, 1926. Beschrieben wurde es als eine Art nahe *P. mercurius* Grum-Grshimailo, 1891, von O. Bang-Haas (1927) in die Synonymie von *P. epaphus himalayanus* Riley, 1923 gestellt, dann von F. Bryk (1935) als Unterart von *P. epaphus* Oberthür, 1879 betrachtet. Nach der Beschreibung von *P. rikihiroi* Kasawaki, 1995 stellte S. Sugisawa (1996) den ursprünglichen Status von *dongalaicus* als eigene Art wieder her, mit *rikihiroi* als Unterart. Dann versetzte J. C. Weiss (2005) beide Taxa in einen „*epaphus*-Komplex". Hier wird vorgeschlagen, wegen der gekielten Sphragis der Weibchen *P. dongalaicus* zusammen mit *P. jacquemonti* Boisduval, 1836 in die *jacquemonti*-Artengruppe zu stellen.

***Parnassius dongalaicus* Tytler, 1926, une espèce méconnue et au statut malmené (Lepidoptera: Papilionidae)**

Résumé: Cette note revient sur la littérature concernant *Parnassius dongalaicus* Tytler, 1926. Espèce décrite proche de *P. mercurius* Grum-Grshimailo, 1891, puis mise en synonymie avec *P. epaphus himalayanus* Riley, 1923, par O. Bang-Haas (1927), elle est considérée comme une sous-espèce de *P. epaphus* Oberthür, 1879 par F. Bryk (1935). Après la description de *P. rikihiroi* Kawasaki, 1995, S. Sugisawa (1996) redonne à *P. dongalaicus* son statut initial, avec *P. dongalaicus rikihiroi* comme sous-espèce. Récemment, en 2005, J. C. Weiss a mis les deux taxa dans un "Complexe *epaphus*", alors qu'il semble plus raisonnable de les rapprocher de *P. jacquemonti* Boisduval, 1836, puisque que les femelles ont un sphragis avec une quille.

Introduction

With the publication of Volume 4 of "The Parnassiinae of the World", Jean-Claude Weiss (2005) offers his view of the *apollo* group: "... by taking into account the spatial distribution and the differences in the appearance, ... *Parnassius jacquemonti* [can be separated into] 4 species (*P. jacquemonti, P. actinoboloides*, *P. mercurius* and *P. tibetanus*) and *Parnassius epaphus* into 2 (*P. epaphus* and *P. dongalaicus*) (however, the still poorly known *P. dongalaicus*, whose female has a sphragis with a carina, could belong to the '*jacquemonti*' complex)."

In this note, through a review of the literature, I intend to argue that the ambiguity noted by Weiss should be removed the other way. If *P. dongalaicus* Tytler, 1926 has to be in a "complex", it should be in the complex of *P. jacquemonti* Boisduval, 1836.

The chaotic fate of *P. dongalaicus* can mainly be traced back to the following problems:

- from 1926 to 1995, it was known from only one ♀ specimen, and
- it has features reminding of *P. epaphus* Oberthür, 1879 and *P. jacquemonti*.

Before proceeding to discuss the pertinent papers, let us quote from Verity (1905–1911) a comment on the "*jacquemonti/epaphus* imbroglio" in his treatment of *P. jacquemonti:*

> "Boisduval nous donne une description très exacte du ♂ de cette espèce [*jacquemonti*]; malheureusement il ajoute que la poche cornée de la ♀ est sans carène. Ceci avait créé de la confusion dans la synonymie de cette espèce et Elwes (1886) avait proposé de réserver le nom de jacquemonti à la ♀; mais, comme l'exemplaire type de ce sexe est perdu et qu'au contraire M. Oberthür possède celui du ♂, il l'a figuré et il a proposé de fixer les caractères de l'espèce d'après ce dernier sexe.
>
> Environ huit ans après la publication de la description de Boisduval, Blanchard (1844) a de nouveau décrit cette espèce, mais il a commis l'erreur de figurer un exemplaire évidemment très différent de celui qui lui avait servi pour sa description; ainsi il a décrit correctement *jacquemonti,* mais il a figuré l'espèce qui douze ans plus tard recevait le nom d'*epaphus*.
>
> Enfin, pour rendre ce chaos encore plus inextricable, Gray (1852) a de nouveau figuré cette forme sous le nom de *jacquemonti*. C'est Oberthür qui en 1879 a signalé l'erreur de Gray et a proposé le nom d'*epaphus* pour les exemplaires du British Muséum. En effet la comparaison de longues séries de jacquemonti et d'*epaphus* a prouvé plus tard combien elles diffèrent radicalement l'une de l'autre, ainsi qu'on pourra s'en rendre compte par les descriptions de ces deux espèces."

It thus took from 1836 to 1879 to clear up the relative status of *P. jacquemonti* and *P. epaphus,* species quite close but with significant differences, in particular in the shape of the sphragis: in *P. epaphus* it is always without a keel, the only species in the group of *P. apollo* Linnaeus, 1758. In this note we will show that things are not yet quite settled!

The papers which I consider as milestones on the

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historical path of *P. dongalaicus* and which also concern the related *P. rikihiroi* Kawasaki, 1995 and the species mentioned by Tytler in his description of *dongalaicus* are now discussed in chronological order. References to Kawasaki (1995) and its very rich iconography of all pertinent taxa are also given.

The milestones

1. Grum-Grshimailo (1891) described *P. mercurius,* a separate species, from Amdo (Grum-Grshimailo applied the name Amdo to the region between Xining and the Dzhakhar mountains; Grieshuber & Churkin 2003). Rühl & Heyne (1892, 1894) then introduced *P. epaphus* var. *mercurius,* followed by Staudinger & Rebel (1901). Then Stichel (1906) introduced *P. jacquemonti mercurius,* while Verity (1905–1911) remarks: "c'est une erreur inexplicable qu'a commise Staudinger en considérant ... *mercurius* comme variété d'*epaphus,* car le manque de carène l'en éloigne complètement." Since then *mercurius* has been considered as a separate species or a subspecies of *jacquemonti*.

   In their well illustrated review of *P. jacquemonti,* Sugisawa & Inaoka (1998: pl. 7, figs. 9 & 10) show from the BMNH a ♂ syntype of *P. mercurius* and from the ZMKU (Kiev) a ♀ syntype of *P. mercurius: P. mercurius* shows a strong sexual dimorphism.

2. Riley (1923) described, among the butterflies collected during the first Mt Everest expedition:

   a) "*P. epaphus everesti,* ssp. nov." from 12 ♂♂ and 9 ♀♀ collected by Bullock between late June and mid-July 1921 "at camp N.N.W. of Mt. Everest on the moraine shelf above Rongbuk Glacier" at 17 400 ft. and 18 500 ft.:

   "A small but very well-defined local race. About the same size as *sikkimensis* Elwes and *phariensis* Avinoff, but differing from both of these, more particularly from the latter, in the greater opacity of the white ground-colour and the marked reduction of the black marginal markings of both wings. In the ♂ the submarginal lunules on the hind-wing are almost absent and in the ♀ only very slightly, and the same applies to the submarginal series of the fore-wing, but to a lesser extent. The red markings are large and conspicuous on both surfaces, much as in *phariensis.* The race shows a very distinct approach to the more northerly forms *altynensis* Staud. and *nanchanica* Aust."

   b) "*P. epaphus himalayanus*, ssp. nov.", from 3 ♂♂ collected by Bullock at 16 700 ft. and 17 000 ft., 9 miles E. of Everest in early August 1921, 1 ♂ and 1 ♀ collected by Wollaston at Chog La on 8. viii. 1921 and at 14 000 ft. in Rongshar Valley on 28. vii. 1921, respectively:

   "♂. Approaches *sikkimensis* in general appearance very much more than does the preceding form, being more transparent and greyer. The submarginal band on the fore-wing is the most characteristic feature, the black lunules of which it is composed being so much increased in size as to form a continuous only slightly dentate band equal in width to the marginal band. The corresponding band on the hind-wing is similarly very conspicuous, and formed of very well-defined large wedge-shaped black marks. The fore-wing is devoid of red markings; the hind-wing has only the costal and discal spots red-centered. In the ♀ the ground-colour is rather more opaque, but there is no black suffusion. The upper costal spot on fore-wing is red-centred, and, on the hind-wing, the basal spot as well. The range of this subspecies is most probably east and west along the Himalayas; that of the preceeding subspecies northward through Tibet."

   Both subspecies are figured in black and white. Kawasaki (1995: pl. XV, figs. 229 & 230) shows ♂ and ♀ syntypes of *P. epaphus everesti* and ♂ and ♀ syntypes of *P. epaphus himalayanus* (Kawasaki 1995: pl. XVI, figs. 232 & 233), all from the BMNH.

3. Tytler (1926) described our chief concern *Parnassius dongalaica:*

   "A single ♀ which may be a race of *P. mercurius*, Gr-Gr. from Amdo, N.E. Tibet" [Qinghai was then still part of Tibet] "was taken, on the Donga-La [= Dongkar La], on the road to Mont Everest at 16,000 ft. It differs from typical ♀♀ of *P. mercurius* in the British Museum collection in being much smaller and paler, and in having a well-marked series of white marginal and sub-marginal spots on both wings; at the base of the hind-wing there is a large crimson spot which is wanting in all the ♂ and ♀ specimens in the British Museum. In appearance it is somewhat like *P. epaphus everesti* Riley, 1923, but the keeled pouch at once separates it from that form and places it in the *Discobolus-Jacquemontii Mercurius* group."

   With this description, there is a good black and white picture of this unique specimen. Kawasaki (1995: pl. XVI, fig. 234) shows the BMNH type; on one of the labels one reads: "18.7.22" [= 18. vii. 1922], which means that this specimen was captured during the second Mt. Everest expedition. However, Riley (1923) gives in Appendix II a list of the butterflies collected by Dr. Longstaff and Major Norton on the 1922 (second) Mt. Everest expedition, but *P. dongalaica* does not appear in it. Why is it so and from whom did Tytler receive the ♀ he described? Norton collected on the same pass, the same day, *P. acco gemmifer* Fruhst., 1904 at Dongka La, at 17 000 ft. on 18. vii. 1922 and at 16 000 ft. on 19. vii. 1924. On the other hand Riley (1927) lists the Rhopalocera collected on the third Mt. Everest expedition by Major Hingston — *P. acco gemmifer* was again caught on the Dongka La, at 16 500 ft., on 18. vii. 1924.

   P. dongalaica, a rare species?

4. Bang-Haas (1927), in a table of *epaphus* ssp. from Central Himalaya, writes following to *sikkimensis* Elwes, 1882, *phariensis* Avinoff, 1916 and before *everestis* (sic): *himalayanus* = *dongalaica.*

   Why this synonymy? Why *himalayanus* and not *everesti* as mentioned by Tytler? Not a word of explanation. The fate of P. *dongalaica* was sealed for many years. No one reacted as Verity did for *mercurius,* perhaps because only one specimen was involved ?

5. Bryk (1935) gives up the Bang-Haas synonymy but introduces *P. epaphus dongalaicus* Tytler, 1926 (not 1927) with reference to Tytler and to "1927 *P. epa-*

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phus himalayanus (ex synon.), O. Bang-Haas *in:* Horae Macrolep., v. **1** p. 20". This paragraph follows up to *P. e. everesti* Riley, 1923, *P. e. himalayanus* Riley, 1923, and is followed by *P. e. phariensis* Avinov, 1916 and *P. e. sikkimensis* Elwes, 1882.

6. Eisner, in his many contributions to the knowledge on *Parnassius* in Parnassiana and Parnassiana Nova, (apparently?) mentions *P. epaphus dongalaicus* only twice. In Eisner (1961), in a paragraph on Central Himalaya *P. epaphus* ssp., he writes: "subsp. *dongalaicus* Tytler hat laut Bryk zwar eine *epaphus*-Facies, aber eine gekielte Legetasche, ist also wahrscheinlich ein Hybrid", without specifying between which species.

   In Eisner (1963), he compares 13 ♂♂ and 2 ♀♀ collected in Lobuche, Khumbu, North Nepal, in July 1962 by G. Ebert and H. Falkner with the same Central Himalaya *epaphus* ssp. and concludes that he should describe *P. epaphus boschmai* subsp. nova.

7. Epstein (1979), in a very interesting contribution on the importance of *Parnassius* in the Himalaya, writes:

   "Though I belong to those who believe that the Parnassians have been greatly, and often irresponsibly and unscientifically, oversplit, yet I am about to burden the literature with the names of four additional Himalayan subspecies. To resolve this contradiction, I hope that the following historical sketch will highlight what I consider to be a new stage in *Parnassius* systematic, and one to which I wish to contribute."

   In the following pages he distinguishes three periods. First, the "collectors-discoverers" up to 1920, partially handicapped by the "old systematics". Second, from the 1920s to the 1970s, is the period of the "collectionists-specialists", the "Parnassiologists" as they called themselves; Bang-Haas, Bryk and Eisner predominate; they are only interested in morphological analysis but they produced: "in a vast body of literature much work ... permanently valuable". In the third period, many of the authors, well aware of the concepts of species and subspecies, are "experienced field-collectors, ... strongly concerned with biological aspects. [They] assigned primary importance to ecological-geographic as opposed to exclusively morphological considerations in their works ...". Very nice but quite optimistic reading.

   The body of the paper is devoted to *Parnassius hardwickii, Parnassius acdestis* and *Parnassius epaphus,* outside the scope of this note but for a comment in the *epaphus* chapter: "Tytler's subspecies *dongalaicus* is based on a single female, and as its sphragis is keeled it may even belong to *jacquemontii* or be a hybrid."

8. Kawasaki (1995) describes *P. rikihiroi* from 17 ♂♂ and 10 ♀♀ captured around 5000 m on Monda La by A. Helia in July 1994, 1 ♂ captured on Karo La at 5200 m by Y. Watanabe at the end of June 1991 and 1 ♀ captured by V. Paulus at Karo La at 4800 m in mid-July 1994. A detailed description is given: the ♂ genitalia of *P. rikihiroi* are compared with the genitalia of *P. epaphus phariensis, poeta* and *hasegawai* and of *P. actius urumtsiensis* and *P. jacquemonti pamirus, paulusi* and *P. actius actinoboloides*. The different features of *P. rikihiroi* and *P. epaphus phariensis, sikkimensis, himalayanus, everesti* are compared in details.

   A summary in English is given below, as published:

   "Very interesting specimens have been collected from Monda-La, a high altitude area of southern Thibet, near Bhutan. The morphological appearance of this population is close to *Parnassius epaphus* Oberthur, C., 1879. But after the examination, I know that this population has a peculiar sphragis and also peculiar male genitalia. So I describe this population as a new species on this paper. I guess that this new species inhabit at the relatively small area of south Thibet from Chulha Kangri Feng to Mt. Everest, and probably this new species and *P. epaphus* Oberthur, C., 1879 inhabit together at some area of south Thibet. This new species has following peculiar characteristics. Fore wing. The length of wing, ♂ 21–22 mm, ♀ 22–23 mm, it is rather smaller than *P. epaphus* from neighbouring region. Wing shape is wide. Ground colour is creamy white, and scattered thinly with black scales, so it looks darker than *P. epaphus everesti* and lighter than *P. e. phariensis.* Discal ocelli in the cells 1b and 8 are small but conspicuous with the red scales. Marginal black band is well developed without white portions from the edge. Submarginal black band is very well developed and border of this band is not vague. Submarginal black band is nearly equal to marginal black band in size, both black bands are great contrast to ground colour. The fringes are black at the end of the veins, so it looks like chequered black and white. These fringes are clearly longer than in *Parnassius jacquemontii* Boisduval, 1836. Hind wing. Marginal black scales on the veins are well developed ... The red ocellus in the cells 4, 5 is small and looks separated by the black scales on the vein 5, so is not circular". "The red scales always present at the base of the upper side in female and the red scales are very well developed at the base and the anal angle in both sexes. The black scales are well developed from the base to the anal angle and surrounding the discoidal cell. ... Sphragis. The sphragis on the females is always keeled. I have examined five specimens. This sphragis is relatively shorter than *P. epaphus* and *P. jacquemontii.* Male genitalia. The male genitalia are basically close to genitalia of *P. epaphus* and *P. jacquemontii.* The uncus of the male genitalia is clearly longer than *P. epaphus* and *P. jacquemontii.* This uncus is curved less than in *P. epaphus* and *P. jacquemontii*. Remarks: this specific name is dedicated to Mr. Rikihiro Kawasaki who understands me well."

   The types are shown (Kawasaki 1995: pl. XIV, fig. 202, the holotype ♂, fig. 203, the allotype ♀ and its sphragis, fig. 204), as well as many paratypes of *rikihiroi*, all of them from the Kawasaki collection. Surprisingly enough, no comparison is made with *P. dongalaica*, although the holotype is found in the same iconography (Kawasaki 1995; pl. XVI, fig. 234).

   Since that publication, an important number of *rikihiroi* specimens have been found in Monda-La, Karo-La, Yun-La, on slopes and passes, 5000 m high, from Kula Kangri to Gyangzê. Weiss (2005: 317) reports *epaphus* and *dongalaicus* in sympatry on Yun La.

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Eisner (1961) and Epstein (1979) mentioned a possible hybrid origin for *dongalaicus,* perhaps because only one specimen was known(?). They thus assumed that two species (of the *P. apollo* group?) fly in the vicinity of Donga La while only *P. epaphus* has been reported (see above the Riley chapter). With the discovery of *P. rikihiroi,* flying in colonies, it is no longer a possible hypothesis, since hybrids are rare.

9. Sugisawa (1996), in a review of *P. epaphus* Oberthür, 1879, revises the decision of Bang-Haas, *P. dongalaicus* is no longer a subspecies of *P. epaphus,* its status is anew *P. dongalaicus,* and *P. rikihiroi* becomes *P. dongalaicus rikihiroi.*
10. Sugisawa (1998), when completing his 1996 review, describes *P. epaphus pseudosikkimensis* subsp. nova from specimens collected by A. Shinkai near Kangmar, in mid-July 1993 and 1994, about 50 km S Gyantse. The holotype ♂, the allotype ♀ and a pair of paratypes from the Kawasaki collection are shown (Sugisawa 1998: pl. 12, figs. 1–4). There is now a subspecies of *P. epaphus* wherever *P. dongalaicus* flies.
11. Weiss (2005: 317) writes about *P. dongalaicus:*

    "Description – J. Bombay nat. Hist. Soc., **31,** p. 429. A species close to a small '*epaphus*' of the eastern Himalaya ('*everesti*' group), from which it is differentiated by the genitalia (in particular, the uncus is longer and less bent than that of '*epaphus*' with a carina like that of '*jacquemonti*') and the appearance. The hyaline bands and marks are generally well developed and the ocelli (particularly ocellus 2) have an irregular shape" [this description is slightly misleading as the quotations are from both Tytler and Kawasaki, as stressed above].

    In the preceding chapter, Weiss (2005: 290) writes: "This '*jacquemonti*' complex is composed of four species (or semi-species): *P. jacquemonti*, ... They are distinguished by their genitalia ... These four taxa are also differentiated quite easily by their appearance." About *P. jacquemonti* proper, one reads (Weiss 2005: 291): "The ... hook-shaped sphragis is attached under the abdomen by a 'carina' shaped part (a characteristic that is found in the other taxa of the '*jacquemonti*' complex)."

Comparing these two paragraphs, one wonders: Why is *P. dongalaicus* not in the "*jacquemonti* complex"?

Conclusion

In conclusion, while waiting for further and deeper investigations to decide whether *dongalaicus* and *rikihiroi* are synonymous, the latter should be considered as *P. dongalaicus rikihiroi* Kawasaki, 1995, since the known range of *rikihiroi* is to the North and the East of Donga La. Besides, sexual dimorphism being absent in *P. dongalaicus rikihiroi* but very strong in *mercurius,* perhaps it is better not to speak of *dongalaicus* as a possible *mercurius* ssp. As for *P. dongalaicus,* which is known by a single ♀, it would be nice to find a series of specimens "on the road to Mt Everest". In the meantime, whatever the future, there is no reason to lump *P. dongalaicus* into the "*epaphus* complex", they are sympatric but *P. dongalaicus* belongs to the same species group as *P. jacquemonti.*

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Hessenfauna

18. Das aktuelle Vorkommen von *Idaea rusticata* ([Schiffermüller], 1775) im hessischen Rhein-Main-Gebiet (Lepidoptera, Geometridae, Sterrhinae)

Petra M. T. Zub, Lange Straße 13, D-36381 Schlüchtern, Deutschland; p.zub@arge-helep.de

Dr. Wolfgang A. Nässig, Entomologie II, Forschungsinstitut Senckenberg, Senckenberganlage 25, D-60325 Frankfurt am Main, Deutschland; wolfgang.naessig@senckenberg.de

Wirooks & Hirneisen (2007) berichteten kürzlich über die Ausbreitung von *Idaea rusticata*[1] ([Schiffermüller][2], 1775) im unteren Rheintal (Nordwestdeutschland). Es bietet sich an, bekannte Vorkommen und Ausbreitung dieser Art in Hessen zusammenfassend darzustellen.

Diese Art birgt einige Probleme in sich. Um historische Vorkommen in der Literatur überprüfen zu können, muß man die unterschiedlichen taxonomischen Einschätzungen der früheren Autoren berücksichtigen. Die beiden Taxa *rusticata* und *vulpinaria* (Herrich-Schäffer, 1851) werden eigentlich erst seit Gerstberger (1983) konsequent unter dem älteren Namen als eine einzige Art aufgefaßt. Frühere Autoren interpretierten die beiden Taxa mehr oder weniger deutlich als verschiedene Arten (oder beschränkten sich darauf, ihre Zusammengehörigkeit zu diskutieren). Daher muß die ältere Literatur stets nach beiden Namen durchsucht werden, und dies unter den Gattungen *Idaea* oder *Sterrha*.

In früheren Werken wird die Art (sowohl *vulpinaria* als auch *rusticata*) als mehr oder weniger große Rarität dargestellt, und in frühen „Roten Listen“ (etwa Pretscher et al. 1977, 1984) wurde sie für Deutschland stets als „gefährdet“ („3“) eingestuft. In einigen Bundesländern gilt/galt sie sogar als ausgestorben, beispielsweise in Bayern: Wolf (1993), in Thüringen: Erlacher (2000). Auch noch bei Jedicke (1997) spiegelt sich diese Einschätzung auf Länderebene wider. Erst von Pretscher (1998) wird die Art für Deutschland und von Ebert (2001) für Baden-Württemberg als „ungefährdet“ eingestuft.

Auch unsere frühen Lichtfänge rund um Mühlheim am Main-Lämmerspiel und Schlüchtern in den 1970er und frühen 1980er Jahren konnten nicht mit Nachweisen und Belegen aufwarten. Ältere Nachweise aus dem Mittelrheintal in der Hessensammlung im Senckenberg-Museum stammen aus Braubach (Rheinland-Pfalz, coll. Prior), nicht aus Hessen. Nur im südlichsten Hessen (Kristal

[1]: Wir verwenden hier absichtlich keinen deutschen Namen. Gerade bei einer Art wie *Idaea rusticata* zeigt sich die Unsinnigkeit deutscher Trivialnamen. In vielen Werken hat die Art (wie etwa 90 % der Nachtfalter!) keinen deutschen Namen – weil sie weder von der Bevölkerung, der Land- beziehungsweise Forstwirtschaft noch von den vorwiegend an Tagfaltern interessierten Hobbylepidopterologen wahrgenommen wurde. In Ermangelung eines – wie bei Tagfaltern – eingeführten, bekannten und gebräuchlichen deutschen Namens wird in der Literatur bisweilen ein Name erfunden, wobei jeder Autor einen neuen Namen kreiert: Bergmann (1955) nennt sie „Braungebänderter Heckenlehnen-Kleinspanner“; in den alten „Roten Listen“ Deutschlands (Pretscher et al. 1977, 1984) steht „Braungebänderter Hecken-Kleinspanner“; Ebert (2001) macht dann einen „Südlichen Zwergspanner“ daraus. Welchen soll man nun benutzen?

[2]: „[Schiffermüller]“ anstelle von „[Denis & Schiffermüller]“ gemäß Kudrna & Belicek (2005).

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